

REVIEWED FOR  
DESIGN CRITERIA  
ONLY

Dashed walls indicate a non-bearing wall

Drawing is not to scale u.n.o.

Indicates left end of truss

Client: Walk In - Mayer

Job Name: Yavapai County

Job #: 105782

Location: , Prescott AZ



By signing below, I agree that I have reviewed this layout and the attached truss drawings and found them to be in conformance to my needs for this project, even if it they have deviated from the plans.

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

Disclaimer: This Truss Placement Diagram was not created by an engineer, but rather by the Ballard Truss Staff and is purely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the Truss Design Drawings which may be sealed by the Truss Designer.



MiTek USA, Inc.  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661  
Telephone 916-755-3571

Re: 105782  
Yavapai County 3 Bedroom

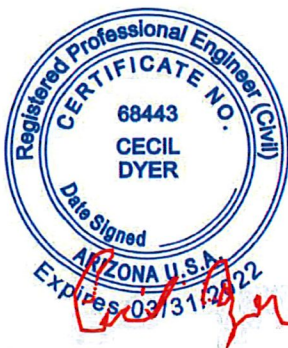
The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Ballard-Mesa, Snow.

Pages or sheets covered by this seal: R64674492 thru R64674517

My license renewal date for the state of Arizona is March 31, 2022.

Arizona COA: 11906-0

Lumber design values are in accordance with ANSI/TPI 1 section 6.3  
These truss designs rely on lumber values established by others.



December 9, 2020

Dyer, Cecil

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

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Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674492
105782	A01	GIRDER	1	2	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:24 2020 Page 2  
ID:CpePSM0ILfRAS2JS9OCf9eyB4UR-wQ9sFI5Z1JK8?O\_IAIBtOMM6xbFWzbEa8ZKyfQyB4HL

#### NOTES-

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 769 lb uplift at joint 2 and 769 lb uplift at joint 11.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent spaced at 17-5-4 oc max. starting at 6-0-6 from the left end to 23-5-10 to connect truss(es) to back face of bottom chord.
- 15) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 8-0-12 from the left end to 21-5-4 to connect truss(es) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-100, 4-9=-100, 9-12=-100, 2-11=-20

Concentrated Loads (lb)

Vert: 18=-948(B) 14=-948(B) 22=-407(B) 23=-407(B) 24=-407(B) 25=-407(B) 26=-407(B) 27=-407(B) 28=-407(B) 29=-407(B)

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674493
105782	A02	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:52:26 2020 Page 1

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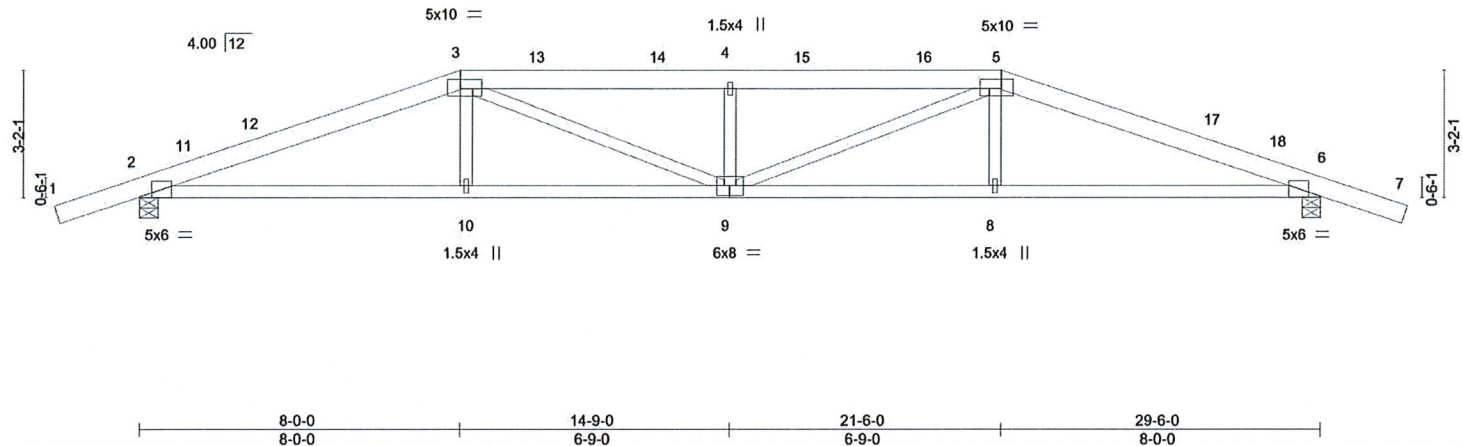


Plate Offsets (X,Y)-- [2:0-3-10,Edge], [3:0-6-4,0-2-12], [5:0-6-4,0-2-12], [6:0-3-10,Edge]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 40.0	2-0-0	TC 0.67	in (loc) l/defl L/d	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.78	Vert(LL) -0.42 9 >838 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.70	Vert(CT) -0.59 9 >595 180		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.17 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 124 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 3-3-13 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 9-10-1 oc bracing.
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud	

**REACTIONS.** (size) 2=0-5-8, 6=0-5-8  
Max Horz 2=-63(LC 15)  
Max Uplift 2=-372(LC 10), 6=-372(LC 11)  
Max Grav 2=2097(LC 35), 6=2097(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4257/656, 3-4=-5441/822, 4-5=-5441/822, 5-6=-4257/656  
BOT CHORD 2-10=-502/3931, 9-10=-498/3939, 8-9=-513/3939, 6-8=-517/3931  
WEBS 3-10=0/305, 3-9=-232/1625, 4-9=-1125/226, 5-9=-233/1625, 5-8=0/305

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 8-0-0, Exterior(2R) 8-0-0 to 12-11-6, Interior(1) 12-11-6 to 21-6-0, Exterior(2R) 21-6-0 to 26-5-6, Interior(1) 26-5-6 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 372 lb uplift at joint 2 and 372 lb uplift at joint 6.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**MITek**  
MITek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674494
105782	A03	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:52:27 2020 Page 1  
ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-K\_r?uK7RKEjjsnrlqla07\_gEpICAvb0qXZcGlyB4HI

-2-0-0	5-0-0	10-0-0	14-9-0	19-6-0	24-6-0	29-6-0	31-6-0
2-0-0	5-0-0	5-0-0	4-9-0	4-9-0	5-0-0	5-0-0	2-0-0

Scale = 1:55.0

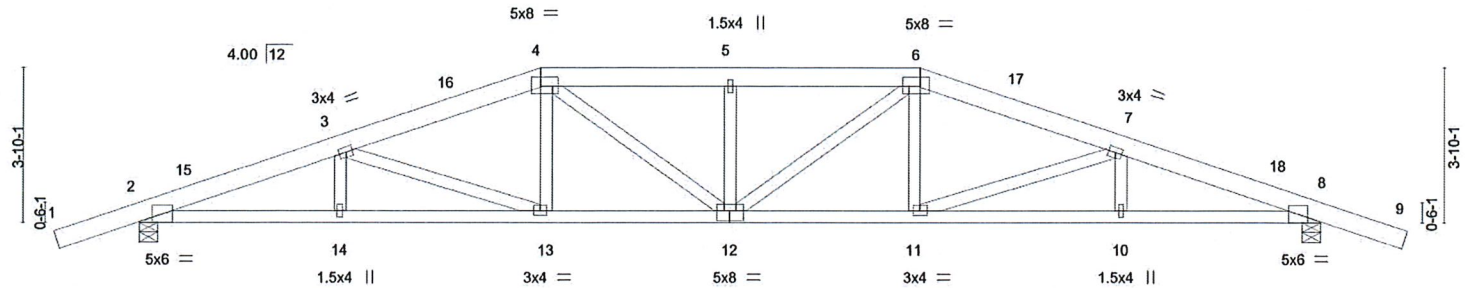


Plate Offsets (X,Y)--	[2:0-3-14,Edge], [4:0-5-4,0-2-12], [6:0-5-4,0-2-12], [8:0-3-14,Edge], [12:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.29	Vert(LL)	-0.27	12	>999	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.71	Vert(CT)	-0.41	12-13	>850		
TCDL 10.0	Lumber DOL 1.15	WB 0.54	Horz(CT)	0.16	8	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 141 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-2-0 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 9-3-4 oc bracing.
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud	

REACTIONS.	(size) 2=0-5-8, 8=0-5-8
Max Horz 2=-75(LC 19)	
Max Uplift 2=-363(LC 10), 8=-363(LC 11)	
Max Grav 2=2309(LC 35), 8=2309(LC 35)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-4371/715, 3-4=-3754/644, 4-5=-3854/702, 5-6=-3854/702, 6-7=-3754/644, 7-8=-4371/714
BOT CHORD	2-14=-585/3975, 13-14=-585/3975, 12-13=-449/3520, 11-12=-466/3520, 10-11=-601/3975, 8-10=-601/3975
WEBS	3-13=-872/144, 4-13=0/411, 4-12=-130/791, 5-12=-762/162, 6-12=-130/791, 6-11=0/411, 7-11=-872/143

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 10-0-0, Exterior(2R) 10-0-0 to 14-9-0, Interior(1) 14-9-0 to 19-6-0, Exterior(2R) 19-6-0 to 24-6-0, Interior(1) 24-6-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 363 lb uplift at joint 2 and 363 lb uplift at joint 8.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED 03/09/2020  
DESIGNED 03/09/2020  
ONLY

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Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCS1 Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MITek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674495
105782	A04	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:28 2020 Page 1

ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-oBPN5g835YraU7H3PXGpYCXpTDduvO3A3BIAoByB4HH

-2-0-0 6-0-0 12-0-0 17-6-0 23-6-0 29-6-0 31-6-0  
2-0-0 6-0-0 6-0-0 5-6-0 6-0-0 6-0-0 2-0-0

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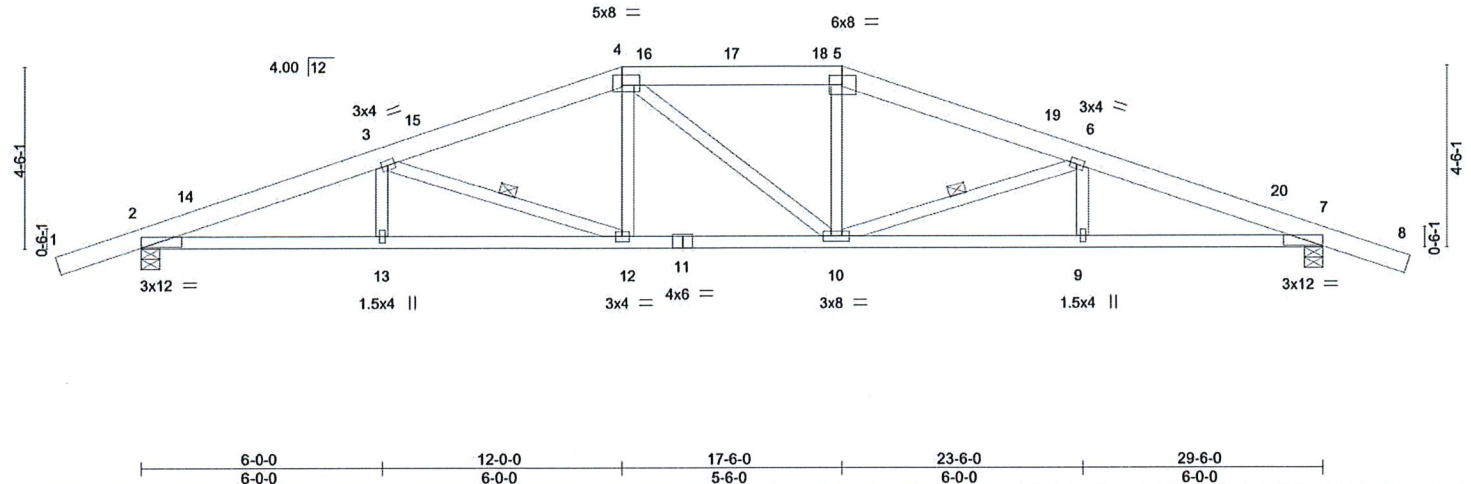


Plate Offsets (X,Y)--		[2:1-0-0,0-0-6], [4:0-5-4,0-3-4], [7:1-0-0,0-0-6]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 40.0	Plate Grip DOL	1.15	TC 0.39
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.81
TCDL 10.0	Rep Stress Incr	YES	WB 0.39
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH
BCDL 10.0			
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	-0.33 12-13	>999	240
Vert(CT)	-0.47 12-13	>734	180
Horz(CT)	0.19 7	n/a	n/a
PLATES	GRIP		
MT20	185/144		
Weight: 137 lb	FT = 10%		

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-2-7 oc bracing.  
WEBS 1 Row at midpt 3-12, 6-10

**REACTIONS.** (size) 2=0-5-8, 7=0-5-8  
Max Horz 2=88(LC 18)  
Max Uplift 2=-351(LC 10), 7=-351(LC 11)  
Max Grav 2=2521(LC 35), 7=2521(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4973/726, 3-4=-3625/622, 4-5=-3323/629, 5-6=-3630/622, 6-7=-4971/726  
BOT CHORD 2-13=-591/4524, 12-13=-591/4524, 10-12=-407/3318, 9-10=-607/4522, 7-9=-607/4522  
WEBS 3-12=-1296/201, 4-12=-0/546, 4-10=-352/360, 5-10=-1/544, 6-10=-1288/204

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 12-0-0, Exterior(2R) 12-0-0 to 16-11-6, Interior(1) 16-11-6 to 17-6-0, Exterior(2R) 17-6-0 to 22-5-6, Interior(1) 22-5-6 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 2 and 351 lb uplift at joint 7.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job 105782	Truss A05	Truss Type Hip	Qty 1	Ply 1	Yavapai County 3 Bedroom	R64674496
Ballard Truss LLC, Snowflake, AZ - 85937,						8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:30 2020 Page 1
Job Reference (optional)						ID:CpePSM0ILRAS2JS9OCf9eyB4UR-IZW8WLAJd95lJRSXylHedc7a0HjNJeTWVnH4yB4HF

Scale = 1:55.9

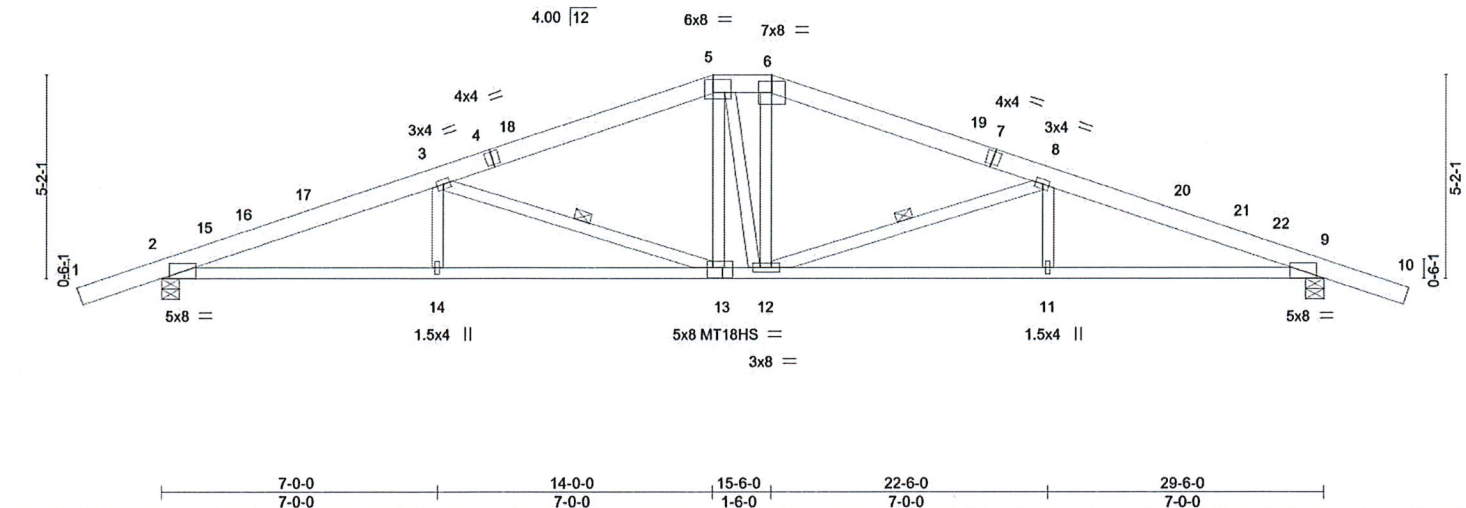


Plate Offsets (X,Y)--		[2:0-2-6,Edge], [5:0-5-8,0-4-0], [9:0-2-6,Edge], [13:0-3-4,0-3-0]	
<b>LOADING (psf)</b>		<b>SPACING-</b>	2-0-0
TCLL 40.0		Plate Grip DOL	1.15
(Roof Snow=40.0)		Lumber DOL	1.15
TCDL 10.0		Rep Stress Incr	YES
BCLL 0.0 *		Code IRC2018/TPI2014	
BCDL 10.0			
		<b>CSL</b>	
		TC 0.48	
		BC 0.91	
		WB 0.32	
		Matrix-SH	
		<b>DEFL.</b>	
		in (loc)	l/defl
		Vert(LL)	-0.40 13-14 >870 240
		Vert(CT)	-0.58 13-14 >605 180
		Horz(CT)	0.22 9 n/a n/a
		<b>PLATES</b>	<b>GRIP</b>
		MT20	185/144
		MT18HS	185/144
		Weight: 137 lb	FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x6 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied or 3-4-5 oc purlins.
BOT CHORD	2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied or 9-7-4 oc bracing.
WEBS	2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud *Except*	WEBS	1 Row at midpt 3-13, 8-12
	3-13,8-12: 2x4 SPF 1650F 1.5E		

<b>REACTIONS.</b>	(size) 2=0-5-8, 9=0-5-8
	Max Horz 2=100(LC 18)
	Max Uplift 2=-338(LC 10), 9=-338(LC 11)
	Max Grav 2=2733(LC 35), 9=2733(LC 35)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-5537/669, 3-5=-3824/533, 5-6=-3506/551, 6-8=-3850/535, 8-9=-5532/676
BOT CHORD	2-14=-531/5050, 13-14=-531/5050, 12-13=-307/3493, 11-12=-555/5045, 9-11=-555/5045
WEBS	3-14=0/289, 3-13=-1677/263, 5-13=-33/614, 5-12=-353/415, 6-12=-52/628, 8-12=-1646/265, 8-11=0/284

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 14-0-0, Exterior(2E) 14-0-0 to 15-6-0, Exterior(2R) 15-6-0 to 20-5-6, Interior(1) 20-5-6 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) All plates are MT20 plates unless otherwise indicated.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 338 lb uplift at joint 2 and 338 lb uplift at joint 9.
  - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
DESIGNED BY  
ONLY

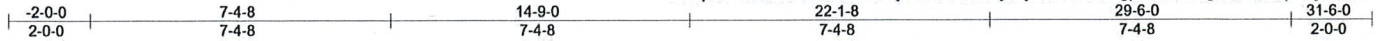


Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674497
105782	A06	Common	6	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:31 2020 Page 1

ID:CpePSM0ILfRAS2JS9OCf9eyB4UR-Dm4WjhByOTD9LT0e4gpWAr9lNQgu6lPcl9XqPWYB4HE



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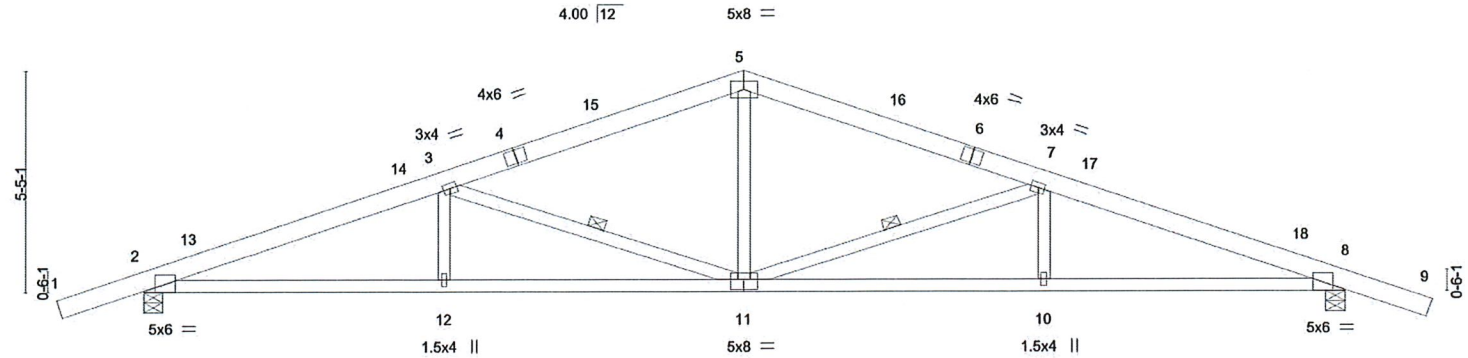


Plate Offsets (X,Y)--	[2:0-3-6,Edge], [8:0-3-6,Edge], [11:0-4-0,0-3-0]
-----------------------	--

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.26 11-12	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.43 11-12	>816	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.16 8	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH					Weight: 127 lb	FT = 10%
BCDL 10.0									

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
7-11,3-11: 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-11, 3-11

**REACTIONS.** (size) 2=0-5-8, 8=0-5-8  
Max Horz 2=105(LC 14)  
Max Uplift 2=-332(LC 10), 8=-332(LC 11)  
Max Grav 2=1998(LC 21), 8=1998(LC 22)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4166/612, 3-5=-2797/480, 5-7=-2797/480, 7-8=-4166/611  
BOT CHORD 2-12=-470/3818, 11-12=-470/3818, 10-11=-491/3818, 8-10=-491/3818  
WEBS 5-11=-61/973, 7-11=-1578/288, 7-10=0/291, 3-11=-1578/286, 3-12=0/291

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 14-9-0, Exterior(2R) 14-9-0 to 18-3-0, Interior(1) 18-3-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 332 lb uplift at joint 2 and 332 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY: [Signature]  
DESIGNED BY: [Signature]  
DATE: December 9, 2020  
ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job 105782	Truss A07	Truss Type Common	Qty 2	Ply 1	Yavapai County 3 Bedroom	R64674498
Ballard Truss LLC, Snowflake, AZ - 85937,						8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:32 2020 Page 1
Job Reference (optional)						ID:CpePSM0ILfRAS2JS9OCf9eyB4UR-hyeux1Ba9mL0ycbqeNLj2iUcq2SrByL_pGNxyyB4HD

-2-0-0	7-4-8	14-9-0	22-1-8	25-9-4	29-6-0	31-6-0
2-0-0	7-4-8	7-4-8	7-4-8	3-7-12	3-8-12	2-0-0

Scale = 1:54.2

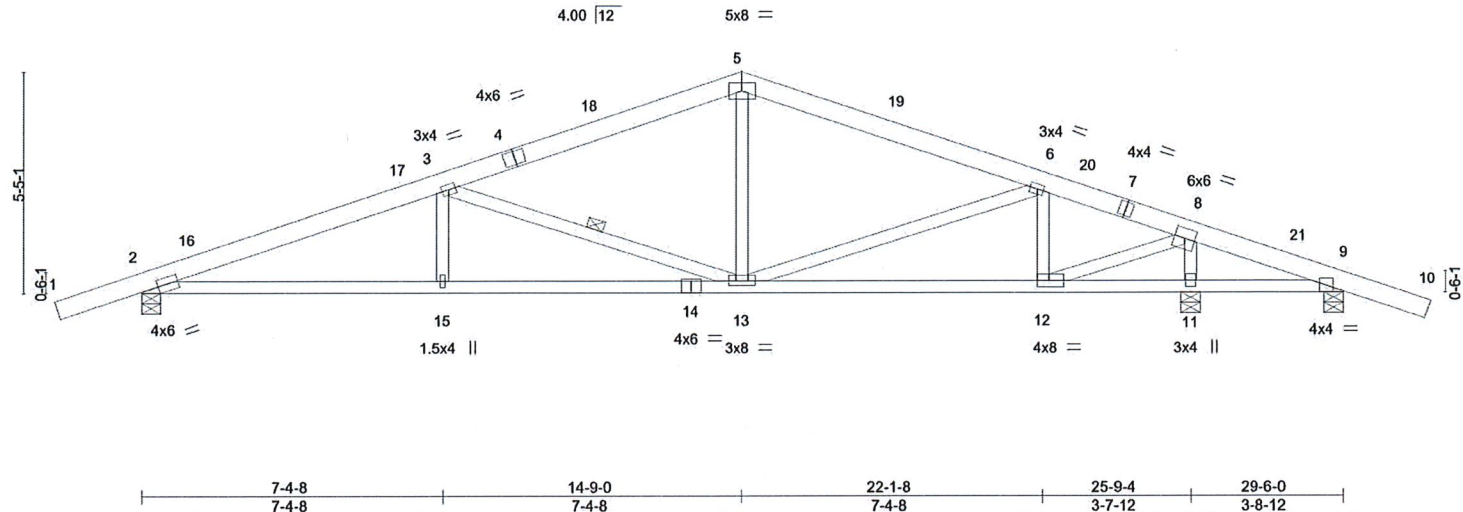


Plate Offsets (X,Y)-- [2:0-5-2,0-2-0], [12:0-3-8,0-2-0]							
<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>in (loc)</b>	<b>l/defl</b>	<b>L/d</b>	<b>PLATES GRIP</b>
TCLL 40.0	2-0-0	TC 0.45	Vert(LL) -0.18	13-15	>999	240	MT20 185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.64	Vert(CT) -0.29	13-15	>999	180	
TCDL 10.0	Lumber DOL 1.15	WB 0.46	Horz(CT) 0.08	11	n/a	n/a	
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH					Weight: 132 lb FT = 10%
BCDL 10.0	Code IRC2018/TPI2014						

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-7-0 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud *Except*	WEBS 1 Row at midpt 3-13
3-13,6-13,8-12: 2x4 SPF 1650F 1.5E	

<b>REACTIONS.</b>	(size) 2=0-5-8, 11=0-5-8, 9=0-5-8
	Max Horz 2=105(LC 14)
	Max Uplift 2=-311(LC 10), 11=-202(LC 11), 9=-183(LC 21)
	Max Grav 2=1787(LC 21), 11=2176(LC 1), 9=496(LC 20)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3557/524, 3-5=-2000/378, 5-6=-1997/386, 6-8=-1746/311, 8-9=-123/1121
BOT CHORD	2-15=-387/3246, 13-15=-387/3246, 12-13=-184/1631, 11-12=-989/184, 9-11=-989/184
WEBS	3-15=0/290, 3-13=-1617/290, 5-13=-3/469, 6-13=-65/712, 6-12=-842/207, 8-12=-372/2672, 8-11=-2090/324

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 14-9-0, Exterior(2R) 14-9-0 to 18-3-0, Interior(1) 18-3-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 311 lb uplift at joint 2, 202 lb uplift at joint 11 and 183 lb uplift at joint 9.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
DESIGNED BY  
ONLY



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674499
105782	A08	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:33 2020 Page 1

ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-98CG8NCCv4TlamA0C5s\_FGEfeLUacUvDS0xUPyB4HC

-2-0-0	7-0-0	14-0-0	15-6-0	22-6-0	25-9-4	29-6-0	31-6-0
2-0-0	7-0-0	7-0-0	1-6-0	7-0-0	3-3-4	3-8-12	2-0-0

Scale = 1:55.9

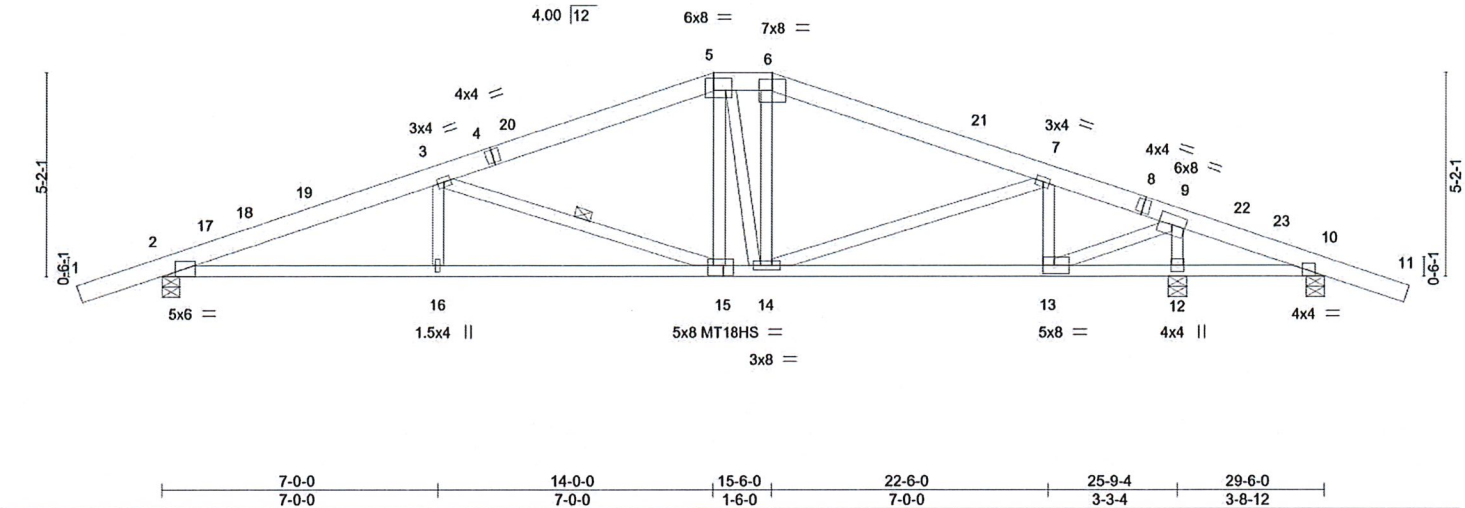


Plate Offsets (X,Y)-- [2:0-4-2,Edge], [5:0-5-8,0-3-12], [13:0-3-8,0-2-8], [15:0-3-4,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL 40.0		Plate Grip DOL 1.15		TC 0.43		Vert(LL) -0.25 15-16	>999 240	MT20	185/144
(Roof Snow=40.0)		Lumber DOL 1.15		BC 0.75		Vert(CT) -0.37 15-16	>829 180	MT18HS	185/144
TCDL 10.0		Rep Stress Incr YES		WB 0.64		Horz(CT) 0.10 12	n/a n/a		
BCLL 0.0 *		Code IRC2018/TPI2014		Matrix-SH				Weight: 142 lb	FT = 10%
BCDL 10.0									

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 3-10-11 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 5-11-11 oc bracing.
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud *Except*	WEBS 1 Row at midpt 3-15
3-15,7-14,9-13: 2x4 SPF 1650F 1.5E	

REACTIONS.	(size) 2=0-5-8, 12=0-5-8, 10=0-5-8
	Max Horz 2=100(LC 18)
	Max Uplift 2=-316(LC 10), 12=-213(LC 11), 10=-195(LC 21)
	Max Grav 2=2375(LC 35), 12=2966(LC 35), 10=494(LC 20)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-4508/573, 3-5=-2740/424, 5-6=-2374/427, 6-7=-2669/415, 7-9=-1950/304, 9-10=-146/1575
BOT CHORD	2-16=-441/4084, 15-16=-441/4084, 14-15=-197/2464, 13-14=-196/1797, 12-13=-1390/206, 10-12=-1390/206
WEBS	3-16=0/291, 3-15=-1745/266, 5-15=-38/630, 5-14=-581/148, 6-14=-98/429, 7-14=-58/785, 7-13=-1246/235, 9-13=-409/3451, 9-12=-2873/351

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 14-0-0, Exterior(2E) 14-0-0 to 15-6-0, Exterior(2R) 15-6-0 to 20-5-6, Interior(1) 20-5-6 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) All plates are MT20 plates unless otherwise indicated.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 316 lb uplift at joint 2, 213 lb uplift at joint 12 and 195 lb uplift at joint 10.
  - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED 08/01/2020  
DESIGNED 08/01/2020  
ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674500
105782	A09	Hip	1	1	Job Reference (optional)	

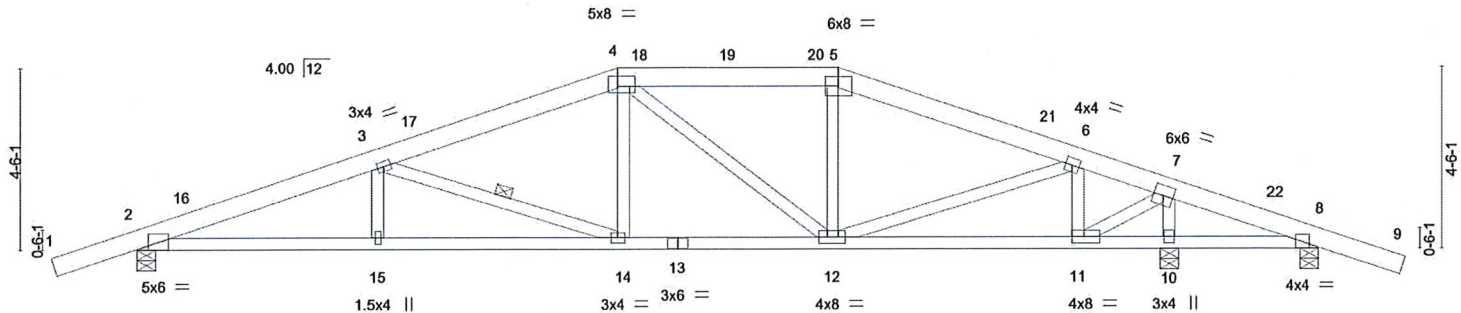
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:34 2020 Page 1

ID:CpePSM0ILFRAS2JS9OCf9eyB4UR-dLmeMjDqgObkCwlDmoNDotnrhdiTJ3w2R6IU0ryB4HB

-2-0-0	6-0-0	12-0-0	17-6-0	23-6-0	25-9-4	29-6-0	31-6-0
2-0-0	6-0-0	6-0-0	5-6-0	6-0-0	2-3-4	3-8-12	2-0-0

Scale = 1:55.0



6-0-0	12-0-0	17-6-0	23-6-0	25-9-4	29-6-0
6-0-0	6-0-0	5-6-0	6-0-0	2-3-4	3-8-12

Plate Offsets (X,Y)-- [2:0-3-6,Edge], [4:0-5-4,0-3-4], [11:0-3-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.21	14-15	>999	240	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.31	14-15	>994	180	
TCDL 10.0	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.09	10	n/a	n/a	
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0									
								Weight: 141 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
 BOT CHORD 2x4 SPF 1650F 1.5E  
 WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
 7-11: 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-4 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-14

#### REACTIONS.

(size) 2=0-5-8, 10=0-5-8, 8=0-5-8  
 Max Horz 2=-88(LC 15)  
 Max Uplift 2=-327(LC 10), 10=-237(LC 11), 8=-218(LC 21)  
 Max Grav 2=2200(LC 35), 10=2660(LC 35), 8=492(LC 20)

#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-4065/623, 3-4=-2662/513, 4-5=-1981/446, 5-6=-2239/442, 6-7=-1166/239,  
 7-8=-167/1455  
 BOT CHORD 2-15=-494/3674, 14-15=-494/3674, 12-14=-303/2414, 11-12=-143/1079, 10-11=-1282/230,  
 8-10=-1282/230  
 WEBS 3-14=-1365/204, 4-14=-2/570, 4-12=-710/130, 6-12=-128/1255, 6-11=-1348/273,  
 7-11=-401/2751, 7-10=-2582/375

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 12-0-0, Exterior(2R) 12-0-0 to 16-11-6, Interior(1) 16-11-6 to 17-6-0, Exterior(2R) 17-6-0 to 22-5-6, Interior(1) 22-5-6 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 327 lb uplift at joint 2, 237 lb uplift at joint 10 and 218 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
 DESIGNER  
 ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674501
105782	A10	SPECIAL	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:36 2020 Page 1

ID: CpePSM0LlFRAS2JS9OCf9eyB4UR-ZjuPnPE4C7rSRUbtDPhtusB6RPyntqLvQEb4jyB4H9

-2-0-0	6-6-0	13-0-0	16-0-0	19-6-0	25-9-4	29-6-0	31-6-0
2-0-0	6-6-0	6-6-0	3-0-0	3-6-0	6-3-4	3-8-12	2-0-0

Scale = 1:55.9

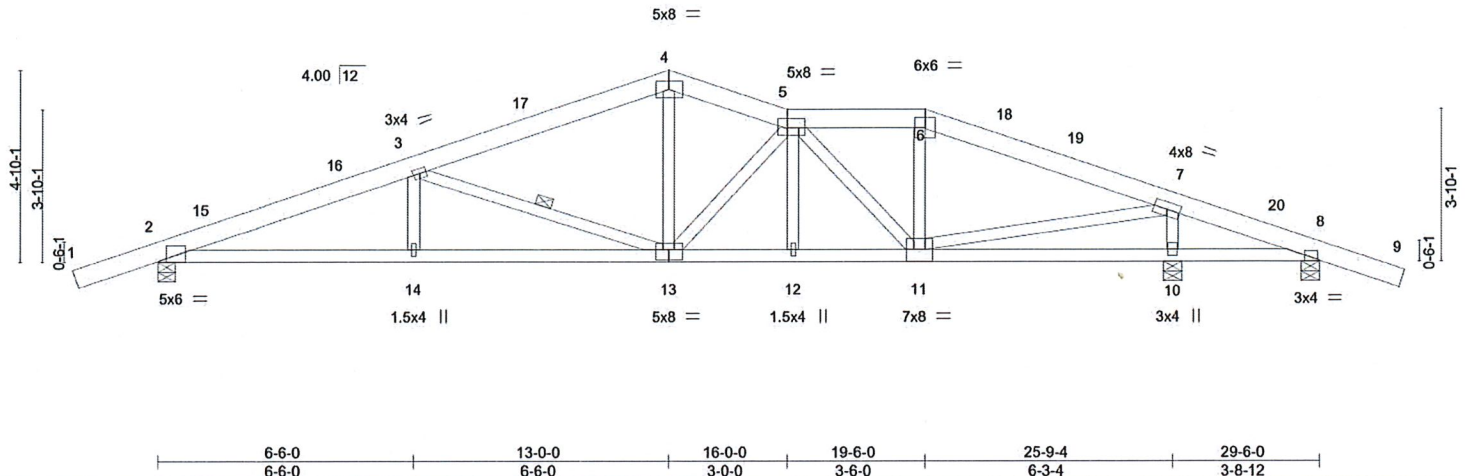


Plate Offsets (X,Y)--	[2:0-2-10,Edge], [5:0-5-4,0-2-12], [8:0-0-10,Edge], [13:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.19 13-14	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.30 13-14	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.08 10	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH					Weight: 144 lb	FT = 10%
BCDL 10.0									

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 3-13

#### REACTIONS.

(size) 2=0-5-8, 10=0-5-8, 8=0-5-8  
Max Horz 2=-94(LC 15)  
Max Uplift 2=-298(LC 10), 10=-209(LC 11), 8=-161(LC 11)  
Max Grav 2=1791(LC 21), 10=2029(LC 37), 8=560(LC 20)

#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-3588/574, 3-4=-2389/460, 4-5=-2254/478, 5-6=-2066/428, 6-7=-2292/422,  
7-8=-47/434  
BOT CHORD 2-14=-439/3276, 13-14=-439/3276, 12-13=-332/2497, 11-12=-331/2498, 10-11=-364/87,  
8-10=-364/87  
WEBS 3-14=0/261, 3-13=-1373/236, 4-13=-113/901, 5-13=-806/154, 5-11=-834/141,  
6-11=-24/292, 7-11=-328/2287, 7-10=-1922/380

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2E) 13-0-0 to 16-0-0, Interior(1) 16-0-0 to 19-6-0, Exterior(2R) 19-6-0 to 23-0-0, Interior(1) 23-0-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 298 lb uplift at joint 2, 209 lb uplift at joint 10 and 161 lb uplift at joint 8.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
DESIGNED BY  
ONLY

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674502
105782	A11	SPECIAL	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:37 2020 Page 1  
ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-1wRn\_IFjzJzl3OToTwwWQ6PMgrWQIU74\_8dAyB4H8

-2-0-0	6-6-0	13-0-0	18-0-0	21-6-0	25-9-4	29-6-0	31-6-0
2-0-0	6-6-0	6-6-0	5-0-0	3-6-0	4-3-4	3-8-12	2-0-0

Scale = 1:55.9

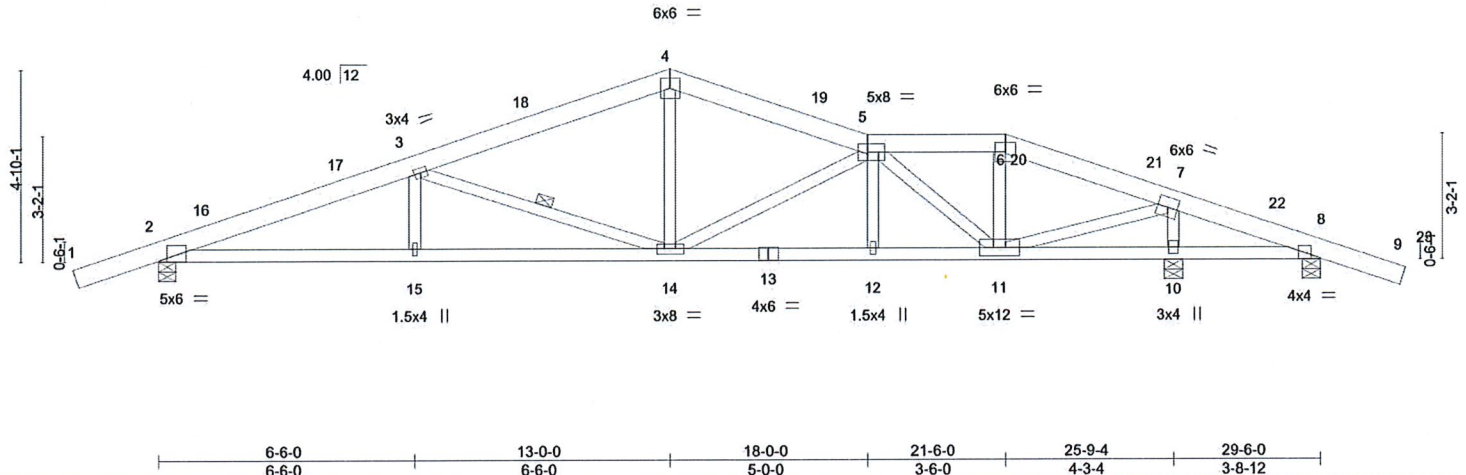


Plate Offsets (X,Y)-- [2:0-2-10,Edge], [5:0-5-4,0-2-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.20 14-15	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.30 14-15	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.58	Horz(CT)	0.09 10	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH					Weight: 140 lb	FT = 10%
BCDL 10.0									

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
7-11: 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 3-14

**REACTIONS.** (size) 2=0-5-8, 10=0-5-8, 8=0-5-8  
Max Horz 2=-94(LC 19)  
Max Uplift 2=-297(LC 10), 10=-233(LC 11), 8=-289(LC 38)  
Max Grav 2=1821(LC 38), 10=2285(LC 22), 8=473(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3670/550, 3-4=-2321/434, 4-5=-2183/446, 5-6=-1566/341, 6-7=-1730/340,  
7-8=-151/1269  
BOT CHORD 2-15=-417/3351, 14-15=-417/3351, 12-14=-350/2610, 11-12=-347/2614, 10-11=-1144/216,  
8-10=-1144/216  
WEBS 3-15=0/258, 3-14=-1386/239, 4-14=-76/765, 5-14=-847/177, 5-11=-1363/226,  
7-11=-408/2689, 7-10=-2177/400

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 21-6-0, Exterior(2R) 21-6-0 to 25-0-0, Interior(1) 25-0-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 297 lb uplift at joint 2, 233 lb uplift at joint 10 and 289 lb uplift at joint 8.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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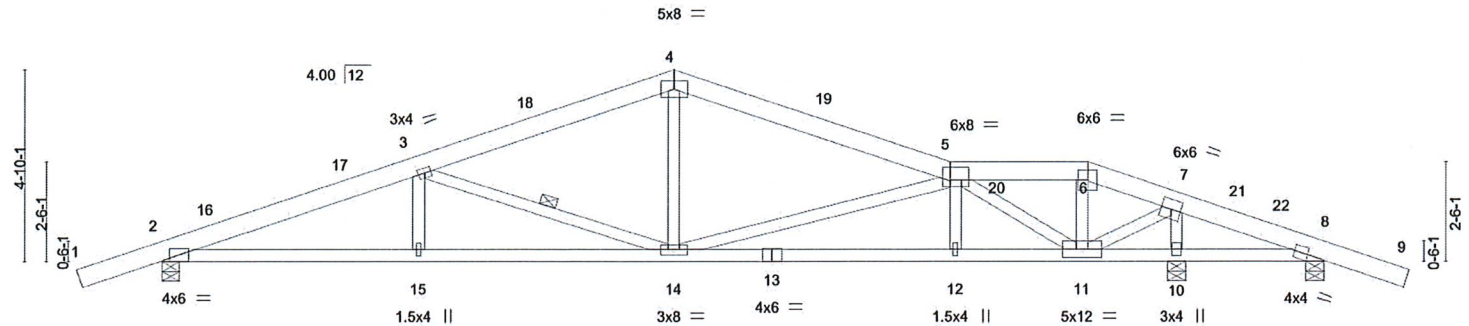
Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674503
105782	A12	Roof Special	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:52:38 2020 Page 1  
ID:CpePSM0ILIRAS2JS9OCi9eyB4UR-W679B5GLkc59hX2\_7eR9yJyVFF57Fq4eMki9cyB4H7

-2-0-0	6-6-0	13-0-0	20-0-0	23-6-0	25-9-4	29-6-0	31-6-0
2-0-0	6-6-0	6-6-0	7-0-0	3-6-0	2-3-4	3-8-12	2-0-0

Scale = 1:55.9



6-6-0	13-0-0	20-0-0	23-6-0	25-9-4	29-6-0
6-6-0	6-6-0	7-0-0	3-6-0	2-3-4	3-8-12

Plate Offsets (X,Y)-- [2:0-2-6,Edge], [5:0-5-12,0-4-0], [8:0-5-6,0-1-15]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.50	Vert(LL)	-0.19	14-15	>999	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.62	Vert(CT)	-0.28	14-15	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.81	Horz(CT)	0.09	10	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 136 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
5-14,7-11: 2x4 SPF 1650F 1.5E

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-8-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 5-0-5 oc bracing.  
WEBS 1 Row at midpt 3-14

**REACTIONS.** (size) 2=0-5-8, 10=0-5-8, 8=0-5-8  
Max Horz 2=-94(LC 19)  
Max Uplift 2=-296(LC 10), 10=-277(LC 11), 8=-562(LC 38)  
Max Grav 2=1761(LC 38), 10=2677(LC 22), 8=371(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3495/521, 3-4=-2144/406, 4-5=-2126/410, 5-6=-366/152, 6-7=-460/153,  
7-8=-288/2130  
BOT CHORD 2-15=-390/3187, 14-15=-390/3187, 12-14=-313/2366, 11-12=-308/2373, 10-11=-1921/356,  
8-10=-1921/356  
WEBS 3-14=-1383/242, 4-14=-26/629, 5-14=-628/188, 5-11=-2376/351, 7-11=-425/2605,  
7-10=-2565/435

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 23-6-0, Exterior(2R) 23-6-0 to 27-0-0, Interior(1) 27-0-0 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 296 lb uplift at joint 2, 277 lb uplift at joint 10 and 562 lb uplift at joint 8.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
DESIGNED BY  
ONLY

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Roseville, CA 95661

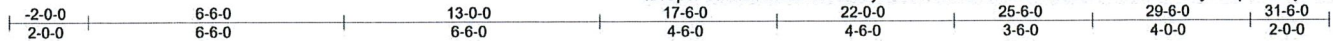


Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674504
105782	A13	Roof Special	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:40 2020 Page 1

ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-SV7vcmHbGELtwrCN63Ud2k1sU2mHjoPxq2CoDVyB4H5



Scale = 1:55.9

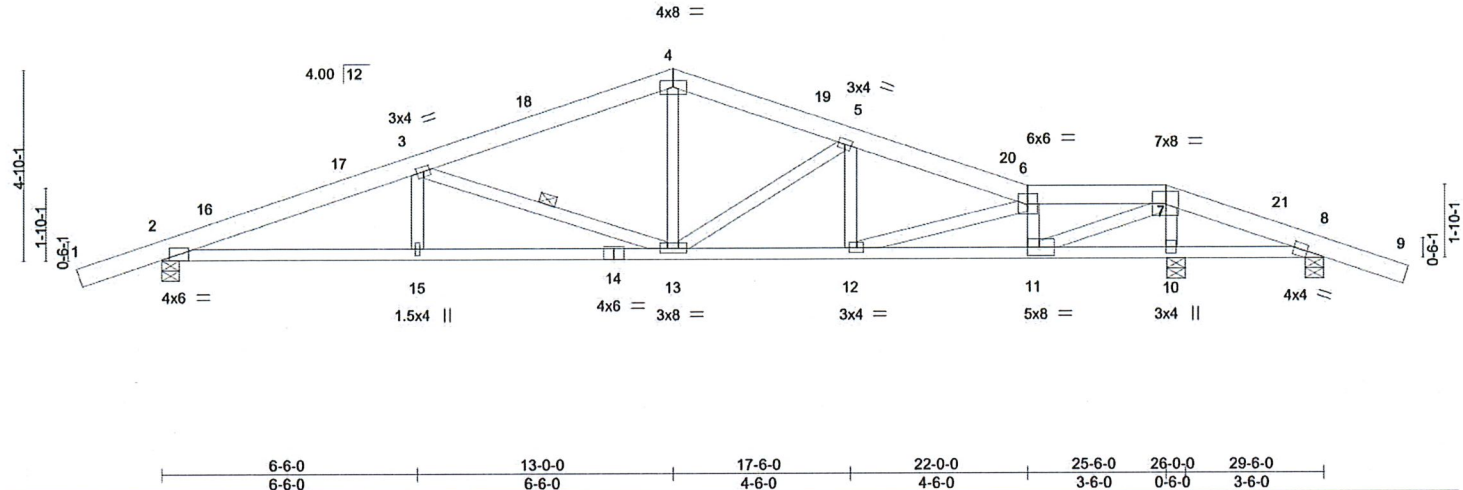


Plate Offsets (X,Y)--		[2:0-2-6,Edge], [8:0-5-6,0-1-15], [11:0-3-8,0-2-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 40.0	2-0-0	TC 0.39	in (loc) l/defl L/d
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.58	Vert(LL) -0.18 13-15 >999 240
TCDL 10.0	Lumber DOL 1.15	WB 0.56	Vert(CT) -0.29 13-15 >999 180
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH	Horz(CT) 0.07 10 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		
			<b>PLATES</b> <b>GRIP</b>
			MT20 185/144
			Weight: 137 lb FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins.
BOT CHORD 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 5-0-2 oc bracing.
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud *Except* 7-11: 2x4 SPF 1650F 1.5E	WEBS 1 Row at midpt 3-13

<b>REACTIONS.</b>	(size) 2=0-5-8, 10=0-5-8, 8=0-5-8
	Max Horz 2=94(LC 18)
	Max Uplift 2=-297(LC 10), 10=-278(LC 11), 8=-499(LC 38)
	Max Grav 2=1735(LC 38), 10=2643(LC 22), 8=363(LC 20)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3424/510, 3-4=-2076/391, 4-5=-2037/407, 5-6=-2553/436, 6-7=-1511/301, 7-8=-283/2135
BOT CHORD	2-15=-379/3121, 13-15=-379/3121, 12-13=-267/2359, 11-12=-215/1645, 10-11=-1686/312, 8-10=-1933/353
WEBS	3-15=0/262, 3-13=-1398/239, 4-13=-66/695, 5-13=-741/165, 6-12=-75/793, 6-11=-1344/274, 7-10=-2523/411, 7-11=-544/3450

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 25-6-0, Exterior(2R) 25-6-0 to 29-3-4, Interior(1) 29-3-4 to 31-6-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 297 lb uplift at joint 2, 278 lb uplift at joint 10 and 499 lb uplift at joint 8.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY: [Signature]  
DESIGNED BY: [Signature]  
DATE: December 9, 2020  
ONLY

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MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674505
105782	B1	GIRDER	1	2	Job Reference (optional)	

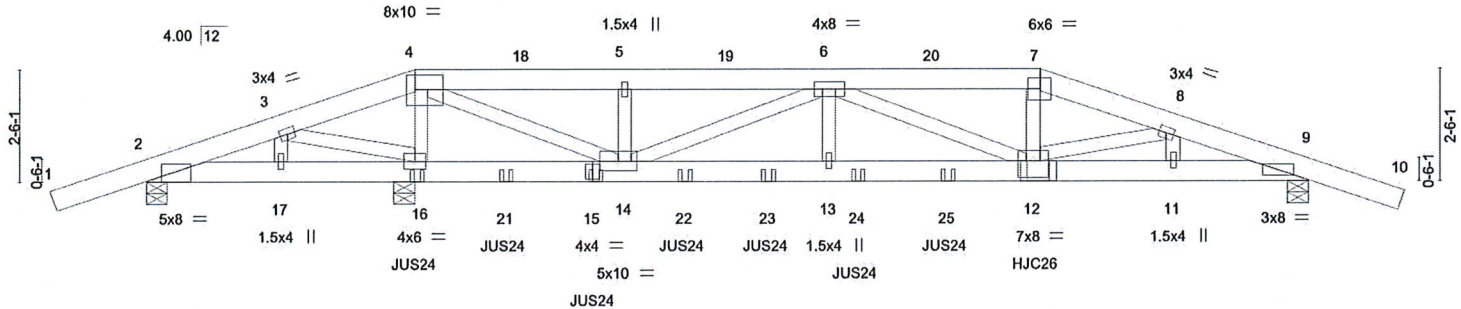
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:43 2020 Page 1

ID:CpePSM0ILRAS2JS9OCf9eyB4UR-s3p2FoKTZ9kSnJxxnB1KfNfPSGqEw7FNWORTqpyB4H2

-2-0-0	3-0-0	6-0-0	10-8-9	15-3-7	20-0-0	23-0-0	26-0-0	28-0-0
2-0-0	3-0-0	3-0-0	4-8-9	4-6-13	4-8-9	3-0-0	3-0-0	2-0-0

Scale = 1:49.3



3-0-0	5-9-4	6-0-0	10-8-9	15-3-7	20-0-0	23-0-0	26-0-0
3-0-0	2-9-4	0-2-12	4-8-9	4-6-13	4-8-9	3-0-0	3-0-0

Plate Offsets (X,Y)-- [2:0-4-0,Edge], [4:0-7-12,0-4-0], [12:0-4-0,0-4-8], [15:0-1-14,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.17	12-13	>999	240	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.22	12-13	>999	180	
TCDL 10.0	Rep Stress Incr	NO	WB 0.62	Horz(CT)	0.03	9	n/a	n/a	
BCLL 0.0	Code IRC2018/TPI2014		Matrix-SH						
BCDL 10.0									
								Weight: 272 lb	FT = 10%

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
 BOT CHORD 2x6 SPF 1650F 1.5E  
 WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud \*Except\*  
 4-14,6-14,6-12: 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-5-8, 16=0-5-8, 9=0-5-8  
 Max Horz 2=51(LC 6)  
 Max Uplift 2=-1015(LC 30), 16=-797(LC 6), 9=-475(LC 7)  
 Max Grav 2=505(LC 45), 16=5762(LC 30), 9=2695(LC 31)

#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-459/3308, 3-4=-442/3511, 4-5=-3368/540, 5-6=-3368/540, 6-7=-6071/899,  
 7-8=-6270/913, 8-9=-5532/764  
 BOT CHORD 2-17=-3055/481, 16-17=-3055/481, 14-16=-3635/555, 13-14=-873/6638, 12-13=-873/6638,  
 11-12=-656/5086, 9-11=-656/5086  
 WEBS 3-16=-528/132, 4-16=-4617/678, 4-14=-1055/7629, 5-14=-670/155, 6-14=-3583/526,  
 6-13=-102/1055, 6-12=-622/226, 7-12=-156/1427, 8-12=-235/987, 8-11=-337/106

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1015 lb uplift at joint 2, 797 lb uplift at joint 16 and 475 lb uplift at joint 9.

Continued on page 2



REVIEWED BY  
 DESIGNED BY  
 ONLY

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
 400 Sunrise Avenue, Suite 270  
 Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674505
105782	B1	GIRDER	1	2	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:43 2020 Page 2  
ID:CpePSM0ILRAS2JS9OCf9eyB4UR-s3p2FoKTZ9kSnJxxnB1KINIPSGqEw7FNW0RTqpyB4H2

#### NOTES-

- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 14) Use USP JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 17-11-4 to connect truss(es) to front face of bottom chord.
- 15) Use USP HJC26 (With 16-16d nails into Girder & 10d nails into Truss) or equivalent at 19-11-10 from the left end to connect truss(es) to front face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

##### Uniform Loads (plf)

Vert: 1-4=-100, 4-7=-100, 7-10=-100, 2-9=-20

##### Concentrated Loads (lb)

Vert: 15=-407(F) 16=-407(F) 12=-948(F) 21=-407(F) 22=-407(F) 23=-407(F) 24=-407(F) 25=-407(F)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674506
105782	B2	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:44 2020 Page 1  
ID:CpePSM0ILFRAS2JS9OCf9eyB4UR-KGNQS8L6KSsJPSV8LuYZCaBa7f4fXvWkgA0MGyB4H1

-2-0-0	5-9-4	8-0-0	13-0-0	18-0-0	20-2-12	26-0-0	28-0-0
2-0-0	5-9-4	2-2-12	5-0-0	5-0-0	2-2-12	5-9-4	2-0-0

Scale = 1:49.3

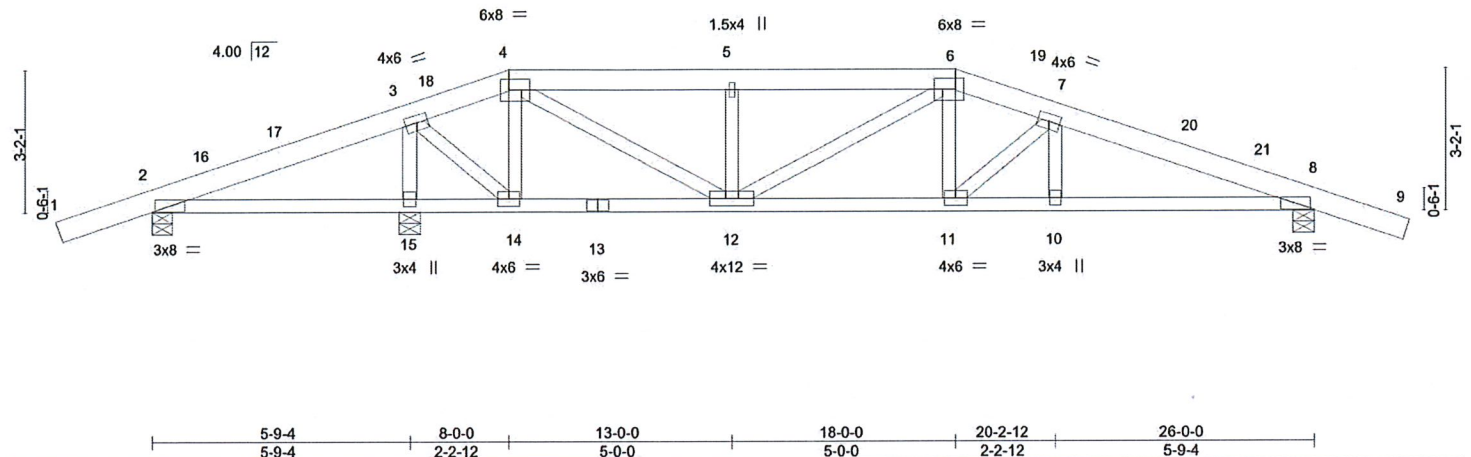


Plate Offsets (X,Y)-- [4:0-5-12,0-3-0], [6:0-5-12,0-3-0]		5-9-4		8-0-0	13-0-0	18-0-0	20-2-12	26-0-0
		5-9-4		2-2-12	5-0-0	5-0-0	2-2-12	5-9-4
<b>LOADING</b> (psf)		<b>SPACING-</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>PLATES</b>
TCLL 40.0		2-0-0		TC 0.28		in (loc) l/defl L/d		<b>GRIP</b>
(Roof Snow=40.0)		Plate Grip DOL 1.15		BC 0.46		Vert(LL) -0.11 11 >999 240		MT20 185/144
TCDL 10.0		Lumber DOL 1.15		WB 0.78		Vert(CT) -0.16 11-12 >999 180		
BCLL 0.0 *		Rep Stress Incr YES		Matrix-SH		Horz(CT) 0.04 8 n/a n/a		
BCDL 10.0		Code IRC2018/TPI2014						Weight: 122 lb FT = 10%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD 2x6 SPF 1650F 1.5E		TOP CHORD	
BOT CHORD 2x4 SPF 1650F 1.5E		BOT CHORD	
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud		Structural wood sheathing directly applied or 5-4-6 oc purlins.	
		Rigid ceiling directly applied or 6-0-0 oc bracing.	

<b>REACTIONS.</b>	
(size) 2=0-5-8, 15=0-5-8, 8=0-5-8	
Max Horz 2=-63(LC 15)	
Max Uplift 2=-149(LC 10), 15=-240(LC 10), 8=-295(LC 11)	
Max Grav 2=599(LC 35), 15=2034(LC 21), 8=1601(LC 35)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD 2-3=-93/930, 3-4=-588/172, 4-5=-2025/394, 5-6=-2025/394, 6-7=-2247/414, 7-8=-2644/449	
BOT CHORD 2-15=-827/166, 14-15=-827/166, 12-14=-25/464, 11-12=-253/2114, 10-11=-344/2381, 8-10=-344/2381	
WEBS 3-15=-1928/347, 3-14=-247/1688, 4-14=-1047/194, 4-12=-264/1824, 5-12=-829/190, 6-12=-432/128, 6-11=-46/514, 7-11=-675/123	

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 8-0-0, Exterior(2R) 8-0-0 to 13-0-0, Interior(1) 13-0-0 to 18-0-0, Exterior(2R) 18-0-0 to 22-11-6, Interior(1) 22-11-6 to 28-0-14 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8)\* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 149 lb uplift at joint 2, 240 lb uplift at joint 15 and 295 lb uplift at joint 8.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY: [Signature]  
DESIGNED BY: [Signature]  
DATE: 12/9/2020  
ONLY

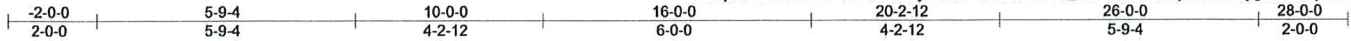


Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674507
105782	B3	Hip	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:45 2020 Page 1

ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-oSwofULk5m\_A0c4Kvc3olokjv3W?O7ygzKwZvlyB4H0



Scale = 1:49.3

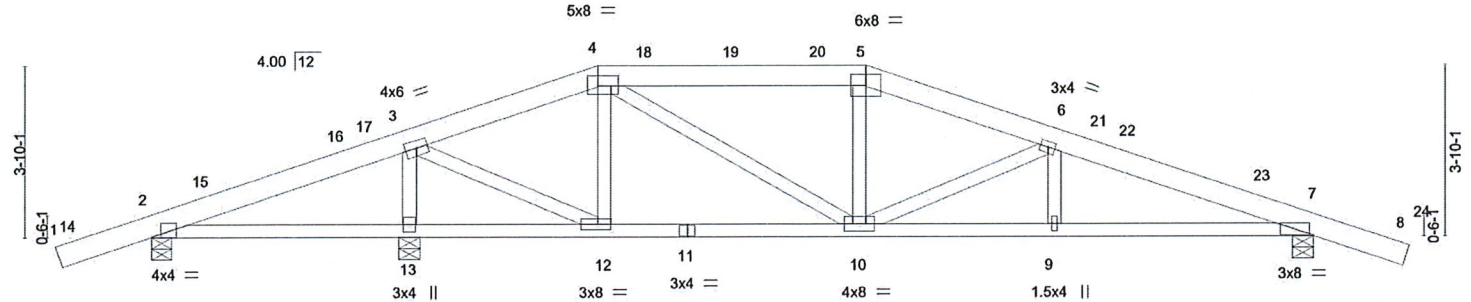


Plate Offsets (X,Y)--	[2:0-2-10,Edge], [4:0-5-4,0-2-12], [12:0-3-8,0-1-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.34	Vert(LL)	-0.11	9-10	>999	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.48	Vert(CT)	-0.16	9-10	>999		
TCDL 10.0	Lumber DOL 1.15	WB 0.73	Horz(CT)	0.04	7	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH					Weight: 120 lb	FT = 10%
BCDL 10.0	Code IRC2018/TPI2014							

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-2-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 2=0-5-8, 13=0-5-8, 7=0-5-8  
Max Horz 2=75(LC 14)  
Max Uplift 2=-163(LC 10), 13=-208(LC 10), 7=-294(LC 11)  
Max Grav 2=626(LC 35), 13=2006(LC 35), 7=1762(LC 35)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-39/649, 3-4=-1189/282, 4-5=-1855/407, 5-6=-2039/401, 6-7=-2796/477  
BOT CHORD 2-13=-518/113, 12-13=-518/113, 10-12=-104/1012, 9-10=-373/2525, 7-9=-373/2525  
WEBS 3-13=-1894/342, 3-12=-247/1706, 4-12=-632/165, 4-10=-145/992, 6-10=-992/156

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 10-0-0, Exterior(2R) 10-0-0 to 14-11-6, Interior(1) 14-11-6 to 16-0-0, Exterior(2R) 16-0-0 to 20-11-6, Interior(1) 20-11-6 to 28-0-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) Provide adequate drainage to prevent water ponding.
  - 6) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 2, 208 lb uplift at joint 13 and 294 lb uplift at joint 7.
  - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED 08/08/2020  
DESIGNED 08/08/2020  
ONLY


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Roseville, CA 95661



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 MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job 105782	Truss B5	Truss Type Common	Qty 3	Ply 1	Yavapai County 3 Bedroom	R64674509
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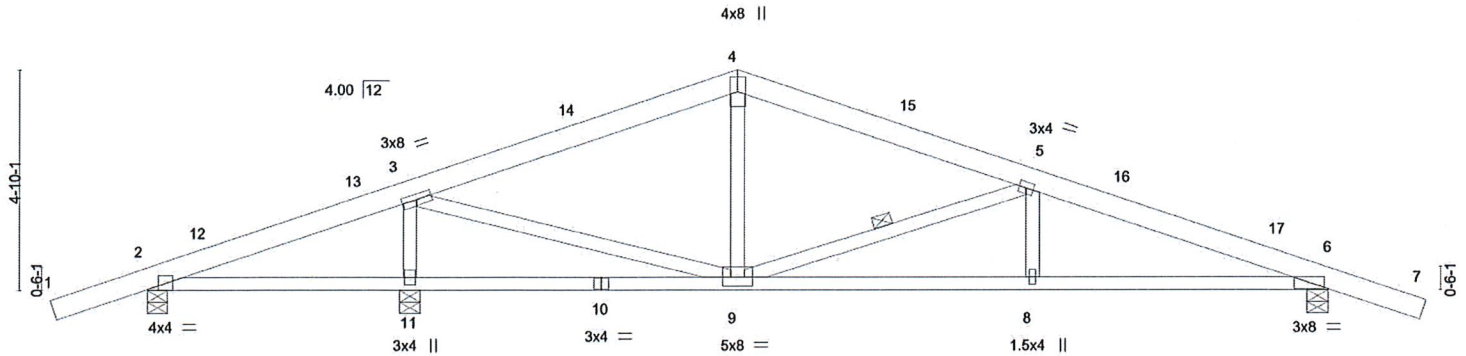
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MITek Industries, Inc. Tue Dec 8 08:52:47 2020 Page 1

ID:CpePSM0ILfRAS2JS9OCf9eyB4UR-lr2Z49N\_cNEuGwEj016GqDp3\_tBASzdzRePgzyB4H\_

-2-0-0	5-9-4	13-0-0	19-6-0	26-0-0	28-0-0
2-0-0	5-9-4	7-2-12	6-6-0	6-6-0	2-0-0

Scale = 1:48.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	40.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.13	MT20		185/144	
(Roof Snow=40.0)		Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.19				
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.04				
BCLL	0.0 *	Code IRC2018/TPI2014		Matrix-SH							
BCDL	10.0										

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied or 5-3-5 oc purlins.
BOT CHORD	2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud *Except*	WEBS	1 Row at midpt 5-9
	3-9: 2x4 SPF 1650F 1.5E		

REACTIONS.	
(size)	2=0-5-8, 11=0-5-8, 6=0-5-8
Max Horz	2=94(LC 14)
Max Uplift	2=-156(LC 10), 11=-190(LC 10), 6=-281(LC 11)
Max Grav	2=570(LC 20), 11=1752(LC 21), 6=1517(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-42/415, 3-4=-1326/274, 4-5=-1398/269, 5-6=-2805/394
BOT CHORD	2-11=-342/91, 9-11=-342/91, 8-9=-293/2541, 6-8=-293/2541
WEBS	3-11=-1621/316, 3-9=-161/1580, 4-9=0/261, 5-9=-1445/248, 5-8=0/251

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 28-0-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - Unbalanced snow loads have been considered for this design.
  - This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 2, 190 lb uplift at joint 11 and 281 lb uplift at joint 6.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED 08/03/2020  
DESIGN CRITERIA 2020 ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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MITek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674510
105782	B6	Common	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:48 2020 Page 1

ID:CpePSM0ILFRAS2JS9OCf9eyB4UR-D1cxIVOcNhMt4pvakdVMQME1HbmbUQ6fi9EV1yB4Gz

-2-0-0 6-6-0 13-0-0 19-6-0 26-0-0  
2-0-0 6-6-0 6-6-0 6-6-0 6-6-0

Scale = 1:46.3

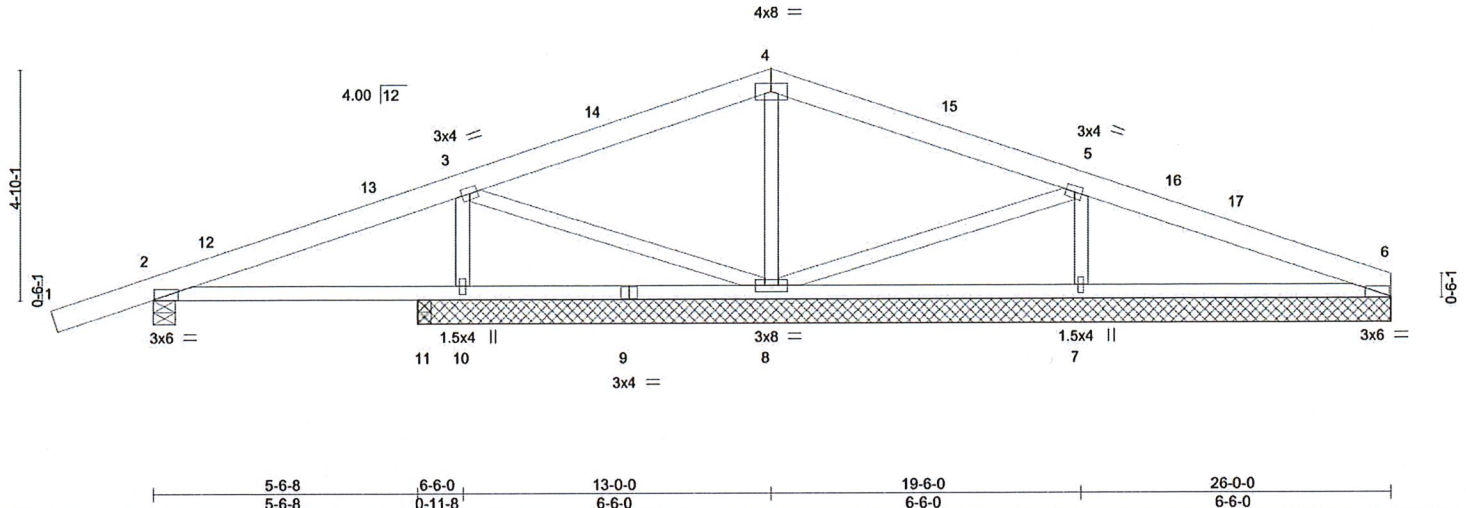


Plate Offsets (X,Y)-- [2:0-0-6,Edge], [6:0-0-6,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	0.03	2-11	>999	240	MT20	185/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.06	6-7	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.00	6	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-SH						Weight: 111 lb	FT = 10%
BCDL 10.0										

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 20-5-8 except (jt=length) 2=0-5-8, 11=0-3-8.  
(lb) - Max Horz 2=104(LC 14)  
Max Uplift All uplift 100 lb or less at joint(s) 6, 8, 11 except 2=171(LC 10), 7=152(LC 11), 10=164(LC 14)  
Max Grav All reactions 250 lb or less at joint(s) 11 except 6=323(LC 1), 2=612(LC 20), 8=719(LC 1), 7=1116(LC 22), 10=1000(LC 21)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 4-8=-559/146, 5-7=-968/226, 3-10=-906/224

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 26-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8, 11 except (jt=lb) 2=171, 7=152, 10=164.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY: [Signature]  
DESIGNED BY: [Signature]  
ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674511
105782	B7	Common	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:49 2020 Page 1  
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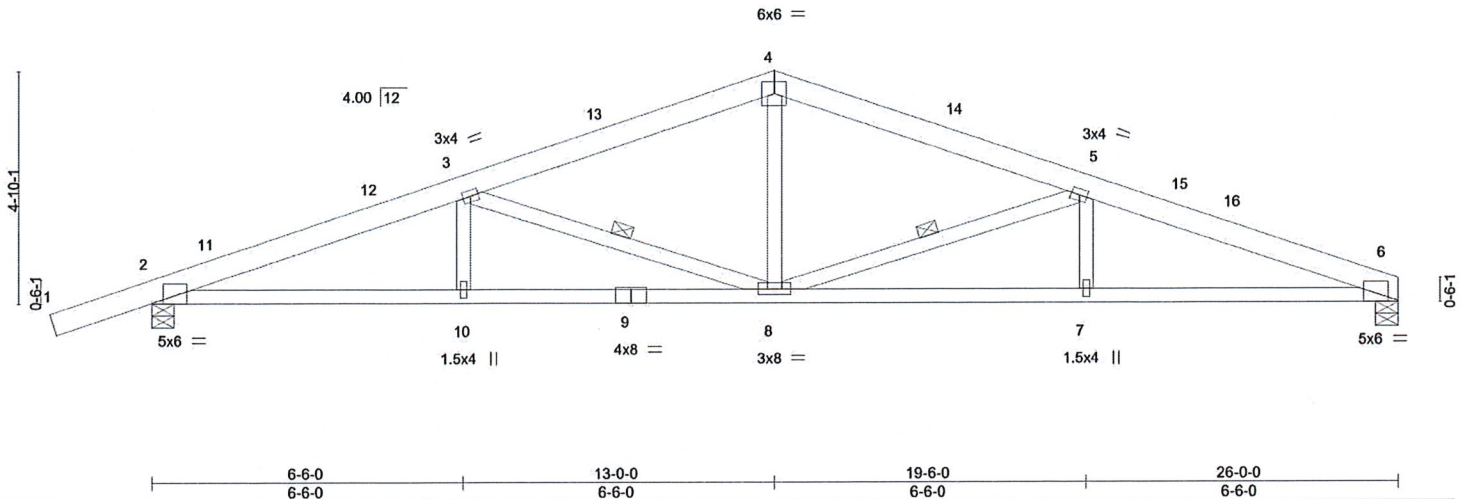
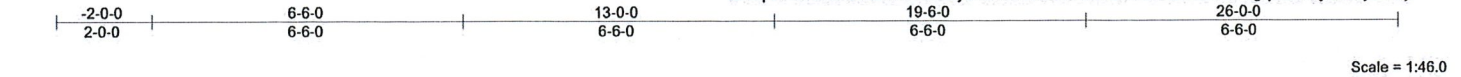


Plate Offsets (X,Y)-- [2:0-2-10,Edge], [6:0-2-10,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.36	Vert(LL)	-0.20	8-10	>999	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.67	Vert(CT)	-0.32	8-10	>946		
TCDL 10.0	Lumber DOL 1.15	WB 0.47	Horz(CT)	0.13	6	n/a		
BCLL 0.0 *	Rep Stress Incr YES	Matrix-SH					Weight: 111 lb	FT = 10%
BCDL 10.0	Code IRC2018/TPI2014							

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-8, 3-8

#### REACTIONS.

(size) 6=0-5-8, 2=0-5-8  
Max Horz 2=104(LC 18)  
Max Uplift 6=-195(LC 11), 2=-307(LC 10)  
Max Grav 6=1579(LC 22), 2=1824(LC 21)

#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-3678/560, 3-4=-2466/445, 4-5=-2468/455, 5-6=-3749/595  
BOT CHORD 2-10=-463/3359, 8-10=-463/3359, 7-8=-491/3459, 6-7=-491/3459  
WEBS 4-8=-75/847, 5-8=-1458/266, 5-7=0/255, 3-8=-1368/240, 3-10=0/252

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 13-0-0, Exterior(2R) 13-0-0 to 16-6-0, Interior(1) 16-6-0 to 25-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=195, 2=307.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



REVIEWED BY  
DESIGNED BY  
ONLY

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MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



**MITek USA, Inc.**  
400 Sunrise Avenue, Suite 270

Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674513
105782	J4	Jack-Open	8	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:50 2020 Page 1  
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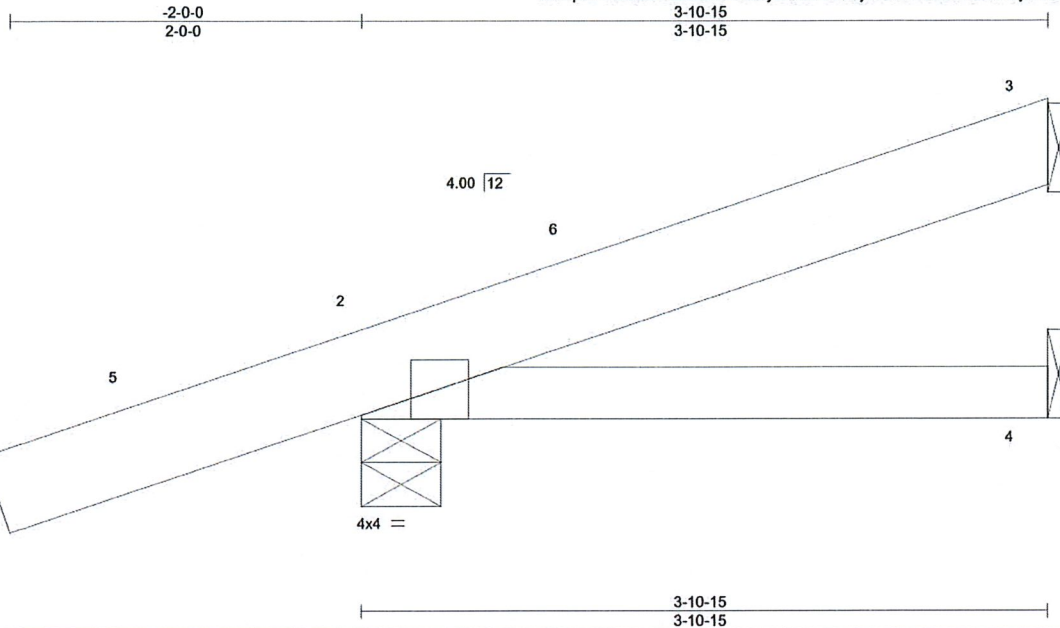


Plate Offsets (X,Y)-- [2:0-3-6,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	2-4	>999	240	MT20	197/144
(Roof Snow=40.0)	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	2-4	>999	180		
TCDL 10.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCLL 0.0 *	Code IRC2018/TPI2014		Matrix-P						Weight: 16 lb	FT = 10%
BCDL 10.0										

#### LUMBER-

TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 2=0-5-8, 4=Mechanical  
Max Horz 2=94(LC 10)  
Max Uplift 3=-96(LC 20), 2=-164(LC 10)  
Max Grav 3=154(LC 21), 2=726(LC 21), 4=72(LC 5)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-14 to 1-5-2, Interior(1) 1-5-2 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=164.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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ONLY

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400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



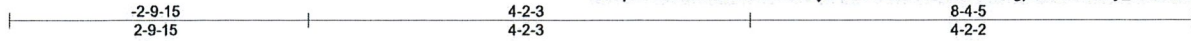
**MiTek USA, Inc.**  
400 Sunrise Avenue, Suite 270  
Dacula, GA 30094

Job 105782	Truss JC1	Truss Type MONO GIRDER	Qty 3	Ply 1	Yavapai County 3 Bedroom	R64674515
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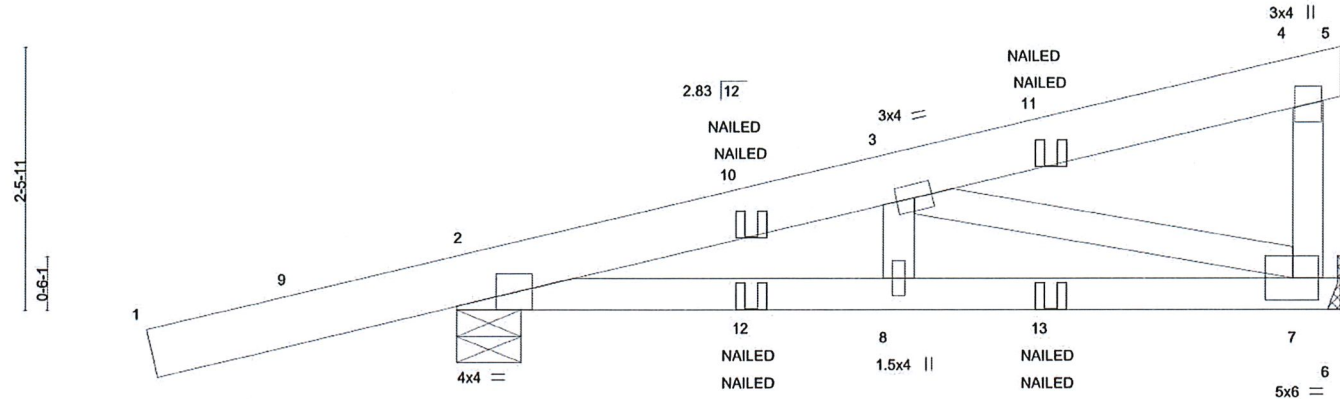
Ballard Truss LLC, Snowflake, AZ - 85937,

8,430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:52 2020 Page 1

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Scale = 1:20.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.02	8	>999	MT20	185/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.28	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 39 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 7=Mechanical, 2=0-7-6  
Max Horz 2=106(LC 7)  
Max Uplift 7=-47(LC 10), 2=-201(LC 6)  
Max Grav 7=569(LC 17), 2=1012(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-869/248, 4-7=-331/73  
BOT CHORD 2-8=-314/733, 7-8=-314/733  
WEBS 3-7=-762/326

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
- 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=201.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-100, 4-5=-100, 2-6=-20

Continued on page 2

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DESIGNED BY  
ONLY



MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674515
105782	JC1	MONO GIRDER	3	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:52 2020 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 10=68(F=34, B=34) 11=-38(F=-19, B=-19) 13=-16(F=-8, B=-8)

REVIEWED FOR  
DESIGN CRITERIA  
ONLY



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*ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component*

**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



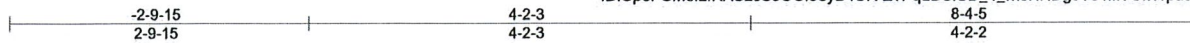
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661

Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674516
105782	JC2	MONO GIRDER	1	1	Job Reference (optional)	

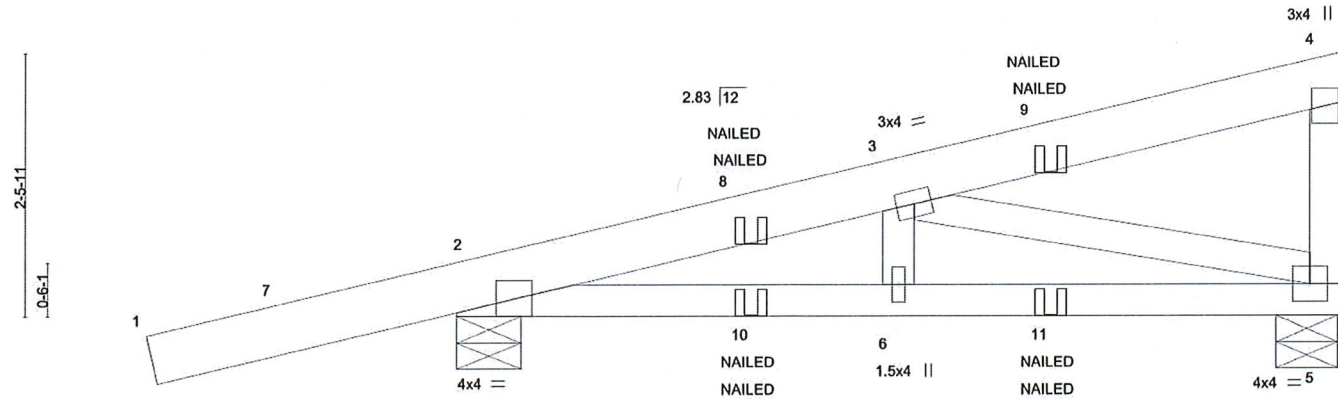
Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:53 2020 Page 1

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Scale = 1:20.8



LOADING (psf)	SPACING-	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0	2-0-0	TC 0.61	Vert(LL)	-0.03	6	>999	240	MT20	185/144
(Roof Snow=40.0)	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	-0.04	5-6	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.31	Horz(CT)	0.01	5	n/a	n/a		
BCLL 0.0 *	Rep Stress Incr NO	Matrix-P							
BCDL 10.0	Code IRC2018/TPI2014								
								Weight: 39 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 5=0-7-0, 2=0-7-6  
Max Horz 2=105(LC 9)  
Max Uplift 5=-44(LC 10), 2=-202(LC 6)  
Max Grav 5=533(LC 17), 2=1031(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-916/233, 4-5=-294/66  
BOT CHORD 2-6=-300/778, 5-6=-300/778  
WEBS 3-5=-807/311

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
  - 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
  - 3) Unbalanced snow loads have been considered for this design.
  - 4) This truss has been designed for greater of min roof live load of 20.0 psf or 2.00 times flat roof load of 40.0 psf on overhangs non-concurrent with other live loads.
  - 5) As requested, plates have not been designed to provide for placement tolerances or rough handling and erection conditions. It is the responsibility of the fabricator to increase plate sizes to account for these factors.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (it=lb) 2=202.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)  
Vert: 1-4=-100, 2-5=-20  
Concentrated Loads (lb)  
Vert: 8=68(F=34, B=34) 9=-38(F=-19, B=-19) 11=-16(F=-8, B=-8)



REVIEWED BY  
DESIGNED BY  
ONLY

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

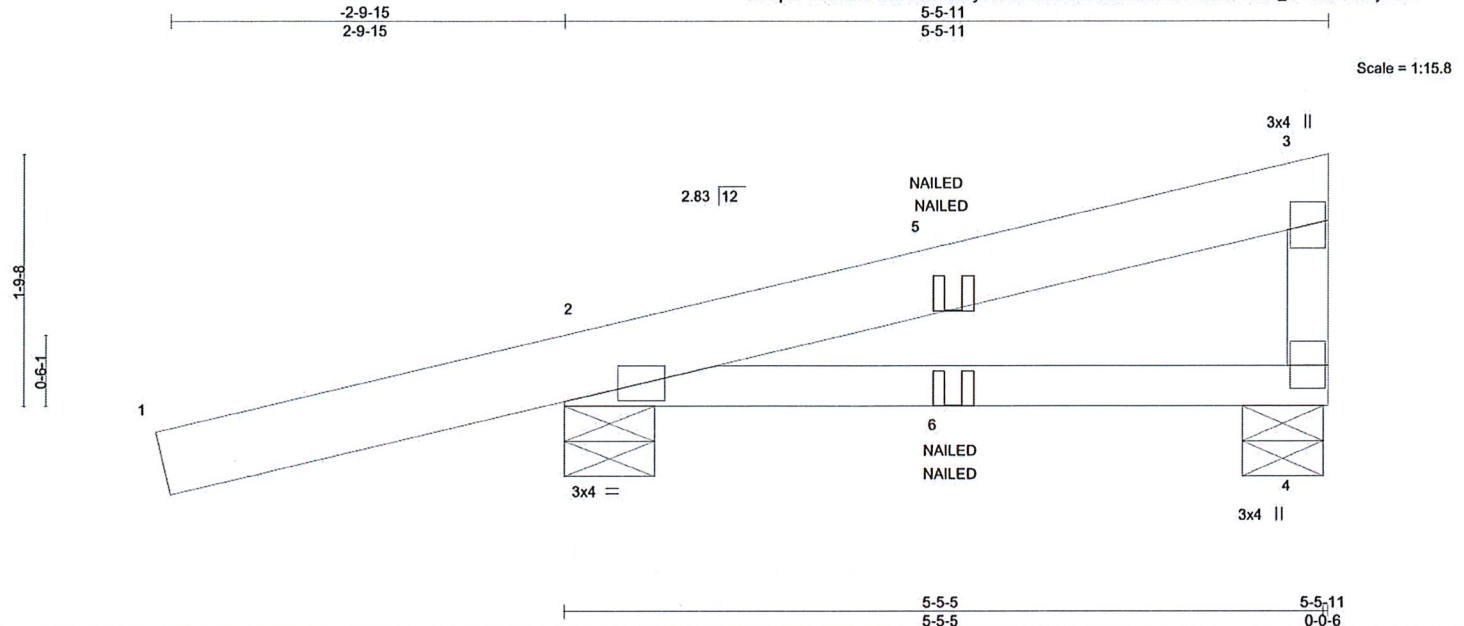
**MiTek**  
MiTek USA, Inc.  
400 Sunrise Avenue, Suite 270  
Roseville, CA 95661



Job	Truss	Truss Type	Qty	Ply	Yavapai County 3 Bedroom	R64674517
105782	JC3	MONO GIRDER	1	1	Job Reference (optional)	

Ballard Truss LLC, Snowflake, AZ - 85937,

8.430 s Nov 30 2020 MiTek Industries, Inc. Tue Dec 8 08:52:54 2020 Page 1  
ID:CpePSM0ILIRAS2JS9OCf9eyB4UR-2BzCYZSNzX6ub?G3x7kvchcBrhe\_7Fe?2EcYlhyB4GI



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 40.0 (Roof Snow=40.0)	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.04	2-4	>999	MT20	185/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.07	2-4	>855		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 23 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x6 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF 1650F 1.5E  
WEBS 2x4 DF Stud or 2x4 HF Stud or 2x4 SPF Stud

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-5-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=0-7-0, 2=0-7-12  
Max Horz 2=74(LC 7)  
Max Uplift 4=118(LC 16), 2=207(LC 6)  
Max Grav 4=217(LC 17), 2=929(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
- 2) TCLL: ASCE 7-16; Pf=40.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
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- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=118, 2=207.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=100, 2-4=20  
Concentrated Loads (lb)  
Vert: 5=68(F=34, B=34)



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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

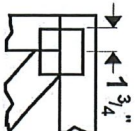


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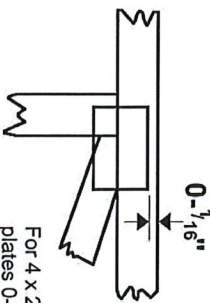


# Symbols

## PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- 1/8" from outside edge of truss.

This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in MiTek 20/20 software or upon request.

## PLATE SIZE

4 X 4

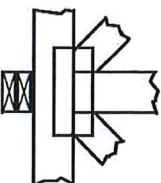
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

## BEARING



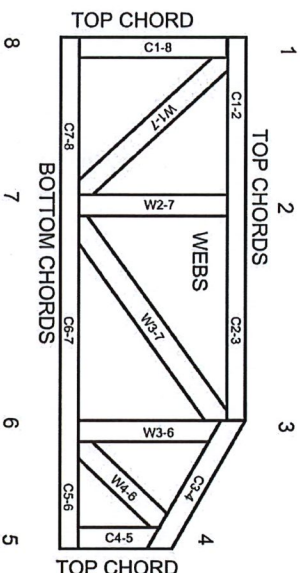
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



JOINTS ARE GENERALLY NUMBERED/CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

REVIEWED FOR DESIGN CRITERIA ONLY